

**Remarks**

The Office Action mailed May 20, 2004 has been carefully reviewed and the foregoing amendments have been made in consequence thereof.

Claims 1-2, 5-17, 20-32, and 35-48 are pending in this application. Claims 1-3, 5-18, 20-33, and 35-45 stand rejected. Claims 4, 19 and 34 are objected to. Claims 3-4, 18-19 and 33-34 are canceled as explained below. Claims 46-48 have been newly added.

The present amendment is intended to place the application in condition for allowance by incorporating subject matter indicated as allowable in the Office Action into independent Claims 1, 16 and 31, namely amending Claim 1 to include the recitations of allowable dependent Claim 4 and intervening Claim 3, amending Claim 16 to include the recitations of allowable dependent Claim 19 and intervening Claim 18, and amending Claim 31 to include the recitations of allowable dependent Claim 34 and intervening Claim 33. Accordingly, Claims 3-4, 18-19 and 33-34 have been canceled. Applicants wish to emphasize that the cancellation of Claims 3-4, 18-19 and 33-34 is without prejudice, and expressly reserve the right to file a continuation application or applications for further prosecution of the subject matter contained in these claims. Accordingly, Applicants expressly disavow any intention to surrender the subject matter of Claims 3-4, 18-19 and 33-34 by cancellation in the instant application, and reserve the right to prosecute these claims in future applications.

The rejection of Claims 9 and 24 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Applicants respectfully submit that Claims 9 and 24 satisfy section 112, second paragraph. More specifically, Applicants respectfully submit that Claims 9 and 24 are definite and particularly point out and distinctly claim the subject matter of the invention.

The Office Action suggests that with respect to dependent Claims 9 and 24 the term “alpha credit analyst table” in line 2 and the term “adjusted credit analyst table” in line 4 lack sufficient antecedent basis. Applicants traverse these suggestions. Applicants respectfully submit that Claims 9 and 24 recite “an alpha credit analyst table” in line 2 and “an adjusted credit analyst table” in line 3. Accordingly, Applicants respectfully submit that the terms “alpha credit analyst table” and “adjusted credit analyst table” as recited in Claims 9 and 24 do not lack

sufficient antecedent basis. Accordingly, Applicants respectfully submit that Claims 9 and 24 satisfy Section 112, second paragraph.

Accordingly, Applicants respectfully request that the rejection of Claims 9 and 24 under Section 112, second paragraph, be withdrawn.

The rejection of Claims 1-14 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is respectfully traversed.

The Office Action suggests at page 3 that “Claims 1-14 are rejected under 35 U.S.C. 101 because the bodies of the claims do not recite technology, i.e. computer implementation or any other technology in a non-trivial manner.” Accordingly, the Office Action rejects Claims 1-14 as being directed to non-statutory subject matter. Applicants respectfully traverse these suggestions and this rejection. However, Applicants have amended Claim 1 to address the rejection set forth in the Office Action.

More specifically, Applicants submit that the claims of the present patent application are directed to practical applications in the technological arts. “Any sequence of operational steps can constitute a process within the meaning of the Patent Act so long as it is part of the technological arts.” *In re Musgrave*, 431 F.2d 882 (C.C.P.A. 1970). For example, independent Claim 1 is a computer-implemented method for rapid valuation of asset portfolios using a portfolio valuation system. Applicants submit that a rapid valuation of asset portfolios using a portfolio valuation system is a useful process that is considered to be within “the technological arts”.

One specific example of such a method implementation is a computer with a processor programmed to at least one of value assets in a portfolio individually, segment the portfolio of assets into three valuation portions, fully underwrite each asset included within a first portion of the asset portfolio, group and underwrite a sample of assets included within a second portion of the asset portfolio, statistically infer a value for each asset included within a third portion of the asset portfolio, list the asset values individually in relational tables, aggregate to desired groups or tranches for bidding purposes, and optimize the bid pricing for desired risk/return tolerance. While the claims are not limited to the specific examples related to a computer with a

programmed processor, the claims need not be so restricted to satisfy the requirement of Section 101.

Applicants further traverse the assertion included in the Office Action that Claims 1-14 are directed to non-statutory subject matter under Section 101 in light of the “Examination Guidelines for Computer-Related Inventions”. The Examination Guidelines for Computer-Related Inventions provides in relevant part as follows:

In order to determine whether the claim is limited to a practical application of an abstract idea, Office personnel must analyze the claim as a whole, in light of the specification, to understand what subject matter is being manipulated and how it is being manipulated. During this procedure, Office personnel must evaluate any statements of intended use or field of use, any data gathering step and any post-manipulation activity....Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under § 101. Further, when such a rejection is made, Office personnel must expressly state how the language of the claims has been interpreted to support the rejection.

Applicants respectfully submit that Claim 1 is limited to a practical application in the technological arts. Furthermore, Applicants respectfully submit that the Office Action does not expressly state how the language of Claim 1 supports the Section 101 rejection.

Claim 1 has been amended. Claim 1 recites a “computer-implemented method for rapid valuation of asset portfolios using a portfolio valuation system”. Thus, Applicants submit that Claim 1 is directed to a useful process that is considered to be within “the technological arts”. Furthermore, Claim 1 recites a “computer-implemented method for rapid valuation of asset portfolios using a portfolio valuation system, the portfolio valuation system including a computer coupled to a database”. The method includes the step of “using the computer to statistically infer a value for each asset included within a third portion of the asset portfolio”. Thus, Claim 1 uses a computer system to perform at least one step of the process. Claim 1 is therefore directed to a practical application in the technological arts.

Dependent Claims 2-14 depend from independent Claim 1, and these dependent Claims are submitted to satisfy the requirements of Section 101 for the same reasons set forth above with respect to independent Claim 1.

For at least the reasons set forth above, Applicants respectfully request that the Section 101 rejection of Claims 1-14 be withdrawn.

The rejection of Claims 1-3, 5-11, 16-18, 20-24, 31-33 and 35-39 under 35 U.S.C. § 103(a) as being unpatentable over Pang et al. (U.S. Patent No. 6,546,375) ("Pang") and Freeman et al. (U.S. Patent No. 6,249,775) ("Freeman") is respectfully traversed.

Claim 3 has been canceled. Claim 1 has been amended to include the recitations of allowable dependent Claim 4 and intervening dependent Claim 3. Accordingly, Claim 1 is submitted to be patentable over Pang and Freeman.

Claims 2 and 5-11 depend from independent Claim 1, which is submitted in condition for allowance and is patentable. When the recitations of Claims 2 and 5-11 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2 and 5-11 likewise are patentable over Pang and Freeman.

Claim 18 has been canceled. Claim 16 has been amended to include the recitations of allowable dependent Claim 19 and intervening dependent Claim 18. Accordingly, Claim 16 is submitted to be patentable over Pang and Freeman.

Claims 17 and 20-24 depend from independent Claim 16, which is submitted in condition for allowance and is patentable. When the recitations of Claims 17 and 20-24 are considered in combination with the recitations of Claim 16, Applicants submit that dependent Claims 17 and 20-24 likewise are patentable over Pang and Freeman.

Claim 33 has been canceled. Claim 31 has been amended to include the recitations of allowable dependent Claim 34 and intervening dependent Claim 33. Accordingly, Claim 31 is submitted to be patentable over Pang and Freeman.

Claims 32 and 35-39 depend from independent Claim 31, which is submitted in condition for allowance and is patentable. When the recitations of Claims 32 and 35-39 are considered in combination with the recitations of Claim 31, Applicants submit that dependent Claims 32 and 35-39 likewise are patentable over Pang and Freeman.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 1-3, 5-11, 16-18, 20-24, 31-33 and 35-39 be withdrawn.

The rejection of Claims 25 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Pang et al. (U.S. Patent No. 6,546,375) ("Pang") and Freeman et al. (U.S. Patent No. 6,249,775) ("Freeman") and further in view of Graham L. Goodman et al., *A Gaussian Mixture Model Classifier Using Supervised and Unsupervised Learning*, International Symposium on Signal Processing and Its Applications, ISSPA, Gold Coast, Australia, 25-30 August 1996 ("Goodman") and Thiesson et al. (U.S. Patent No. 6,408,290) ("Thiesson") is respectfully traversed.

Claims 25 and 26 depend from independent Claim 16. Claim 16 has been amended to include the recitations of allowable dependent Claim 19 and intervening dependent Claim 18. Accordingly, Claim 16 is submitted to be patentable over Pang and Freeman further in view of Goodman and Thiesson.

When the recitations of Claims 25 and 26 are considered in combination with the recitations of Claim 16, Applicants respectfully submit that dependent Claims 25 and 26 are also patentable over Pang and Freeman further in view of Goodman and Thiesson.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 25 and 26 be withdrawn.

The rejection of Claims 12-15 and 27-30 under 35 U.S.C. § 103(a) as being unpatentable over Pang et al. (U.S. Patent No. 6,546,375) ("Pang") and Freeman et al. (U.S. Patent No. 6,249,775) ("Freeman") and further in view of James C. Bezdek et al., *FCM: The Fuzzy C-Means Clustering Algorithm*, Computers & Geosciences, Vol. 10, No 2-3, pp. 191-203, 1984 ("Bezdek") and Kenneth L. Parkinson et al., *Using Credit Screening to Manage Credit Risk*, Business Credit, vol. 100, nbr. 3, p. 22, March 1998 ("Parkinson") is respectfully traversed.

Claims 12-15 depend from independent Claim 1. Claim 1 has been amended to include the recitations of allowable dependent Claim 4 and intervening dependent Claim 3. Accordingly,

Claim 1 is submitted to be patentable over Pang and Freeman further in view of Bezdek and Parkinson.

When the recitations of Claims 12-15 are considered in combination with the recitations of Claim 1, Applicants respectfully submit that dependent Claims 12-15 are also patentable over Pang and Freeman further in view of Bezdek and Parkinson.

Claims 27-30 depend from independent Claim 16. Claim 16 has been amended to include the recitations of allowable dependent Claim 19 and intervening dependent Claim 18. Accordingly, Claim 16 is submitted to be patentable over Pang and Freeman further in view of Bezdek and Parkinson.

When the recitations of Claims 27-30 are considered in combination with the recitations of Claim 16, Applicants respectfully submit that dependent Claims 27-30 are also patentable over Pang and Freeman further in view of Bezdek and Parkinson.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 12-15 and 27-30 be withdrawn.

The rejection of Claims 40 and 41 under 35 U.S.C. § 103(a) as being unpatentable over Pang et al. (U.S. Patent No. 6,546,375) (“Pang”) and Freeman et al. (U.S. Patent No. 6,249,775) (“Freeman”) and further in view of Graham L. Goodman et al., *A Gaussian Mixture Model Classifier Using Supervised and Unsupervised Learning*, International Symposium on Signal Processing and Its Applications, ISSPA, Gold Coast, Australia, 25-30 August 1996 (“Goodman”) and Thiesson et al. (U.S. Patent No. 6,408,290) (“Thiesson”) is respectfully traversed.

Claims 40 and 41 depend from independent Claim 31. Claim 31 has been amended to include the recitations of allowable dependent Claim 34 and intervening dependent Claim 33. Accordingly, Claim 31 is submitted to be patentable over Pang and Freeman further in view of Goodman and Thiesson.

When the recitations of Claims 40 and 41 are considered in combination with the recitations of Claim 31, Applicants respectfully submit that dependent Claims 40 and 41 are also patentable over Pang and Freeman further in view of Goodman and Thiesson.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 40 and 41 be withdrawn.

The rejection of Claims 42-45 under 35 U.S.C. § 103(a) as being unpatentable over Pang et al. (U.S. Patent No. 6,546,375) ("Pang") and Freeman et al. (U.S. Patent No. 6,249,775) ("Freeman") and further in view of James C. Bezdek et al., *FCM: The Fuzzy C-Means Clustering Algorithm*, Computers & Geosciences, Vol. 10, No 2-3, pp. 191-203, 1984 ("Bezdek") and Kenneth L. Parkinson et al., *Using Credit Screening to Manage Credit Risk*, Business Credit, vol. 100, nbr. 3, p. 22, March 1998 ("Parkinson") is respectfully traversed.

Claims 42-45 depend from independent Claim 31. Claim 31 has been amended to include the recitations of allowable dependent Claim 34 and intervening dependent Claim 33. Accordingly, Claim 31 is submitted to be patentable over Pang and Freeman further in view of Bezdek and Parkinson.

When the recitations of Claims 42-45 are considered in combination with the recitations of Claim 31, Applicants respectfully submit that dependent Claims 42-45 are also patentable over Pang and Freeman further in view of Bezdek and Parkinson.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 42-45 be withdrawn.

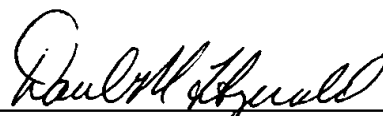
Newly added Claim 46 depends from independent Claim 1, which is submitted in condition for allowance and is patentable over the cited art. For at least the reasons set forth above, Applicants respectfully submit that Claim 46 is also patentable over the cited art.

Newly added Claim 47 depends from independent Claim 16, which is submitted in condition for allowance and is patentable over the cited art. For at least the reasons set forth above, Applicants respectfully submit that Claim 47 is also patentable over the cited art.

Newly added Claim 48 depends from independent Claim 31, which is submitted in condition for allowance and is patentable over the cited art. For at least the reasons set forth above, Applicants respectfully submit that Claim 48 is also patentable over the cited art.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



---

Daniel M. Fitzgerald  
Registration No. 38,880  
ARMSTRONG TEASDALE LLP  
One Metropolitan Square, Suite 2600  
St. Louis, Missouri 63102-2740  
(314) 621-5070